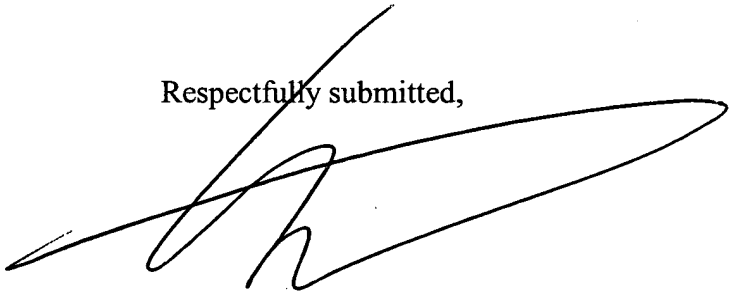
K. Conclusion

Applicant submits that all claims are in condition for allowance. Favorable consideration is respectfully requested.

A Fee Authorization in the amount of $810.00 is enclosed to cover fees for the added claims. If any extension of time is required, Applicant hereby requests the appropriate extension of time. If any fees are inadvertently omitted or if any fees have been overpaid, please charge or credit those fees to Conley, Rose & Tayon, P.C. Deposit Account Number 50-1505/5659-06300/EBM.

Respectfully submitted,



Eric B. Meyertons
Reg. No. 34,876

Attorney for Applicant

CONLEY, ROSE & TAYON, P.C.
P.O. BOX 398
AUSTIN, TX 78767-0398
(512) 703-1254 (voice)
(512) 703-1250 (facsimile)

Date: 8/20/02

Marked-Up Version Of Amendments Submitted With Response To Office Action Mailed May 20, 2002

In The Specification:

On page 30, the paragraph beginning on line 1:

"Hydrocarbons" are generally defined as ~~organic material that contains carbon and hydrogen in their molecular structures~~molecules formed primarily by carbon and hydrogen atoms. Hydrocarbons may also include other elements, such as, but not limited to, halogens, metallic elements, nitrogen, oxygen, and/or sulfur.

On page 53, the paragraph beginning on line 20:

As shown in FIG. 3, in addition to heat sources 100, one or more production wells ~~102~~ 104 will typically be disposed within the portion of the coal formation. Formation fluids may be produced through production well 104. ~~Production well 102 may be configured such that a mixture that may include formation fluids may be produced through the production well.~~ Production well ~~102~~ 104 may also include a heat source. In this manner, the formation fluids may be maintained at a selected temperature throughout production, thereby allowing more or all of the formation fluids to be produced as vapors. Therefore high temperature pumping of liquids from the production well may be reduced or substantially eliminated, which in turn decreases production costs. Providing heating at or through the production well tends to: (1) ~~prevent~~ inhibit condensation and/or refluxing of production fluid when such production fluid is moving in the production well proximate to the overburden, (2) increase heat input into the formation, and/or (3) increase formation permeability at or proximate the production well.

In The Claims:

2424. (amended) A method of treating a coal formation in situ, comprising:

providing heat from one or more ~~heat sources~~heaters to at least a portion of the formation;

allowing the heat to transfer from the one or more ~~heat sources~~heaters to ~~a selected section~~a part of the formation; and

producing a mixture from the formation through one or more production wells, wherein the heating is controlled such that the mixture ~~can be~~is produced from the formation as a vapor, and wherein at least about 7 ~~heat sources~~heaters are disposed in the formation for each production well.

2425. (amended) The method of claim 2424, wherein the one or more ~~heat sources~~heaters comprise at least two ~~heat sources~~heaters, and wherein superposition of heat from at least the two ~~heat sources~~heaters pyrolyzes at least some hydrocarbons within ~~the selected section~~the part of the formation.

2426. (amended) The method of claim 2424, further comprising maintaining a temperature within ~~the selected section~~the part of the formation within a pyrolysis temperature range of about 270 °C to about 400 °C.

2427. (amended) The method of claim 2424, wherein the one or more ~~heat sources~~heaters comprise electrical heaters.

2428. (amended) The method of claim 2424, wherein the one or more ~~heat sources~~heaters comprise surface burners.

2429. (amended) The method of claim 2424, wherein the one or more ~~heat sources~~heaters comprise flameless distributed combustors.

2430. (amended) The method of claim 2424, wherein the one or more ~~heat sources~~heaters comprise natural distributed combustors.

2431. (amended) The method of claim 2424, further comprising controlling a pressure and a temperature within at least a majority of ~~the selected section~~the part of the formation, wherein the pressure is controlled as a function of temperature, or the temperature is controlled as a function of pressure.

2432. (amended) The method of claim 2424, further comprising controlling the heat such that an average heating rate of ~~the selected section~~the part of the formation is less than about 1 °C per day within a pyrolysis temperature range of about 270 °C to about 400 °C~~during pyrolysis~~.

2433. (amended) The method of claim 2424, wherein providing heat from the one or more ~~heat sources~~heaters to at least the portion of formation comprises:

heating a selected volume (V) of the coal formation from the one or more ~~heat sources~~heaters, wherein the formation has an average heat capacity (C_v), and wherein the heating pyrolyzes at least some hydrocarbons within the selected volume of the formation; and

wherein heating energy/day *(Pwr)* provided to the selected volume is equal to or less than ~~*Pwr*, wherein *Pwr* is calculated by the equation:~~

~~$Pwr = h*V*C_v*\rho_{B,}$~~

~~wherein *Pwr* is the heating energy/day, *h* is an average heating rate of the formation, ρ_B~~ is formation bulk density, and wherein ~~the~~ an average heating rate of the formation (h) is ~~less than~~ about 10 °C/day.

2435. (amended) The method of claim 2424, wherein providing heat from the one or more ~~heat sources~~heaters comprises heating ~~the selected section~~the part of the formation such that a thermal conductivity of at least a portion of ~~the selected section~~the part of the formation is greater than about 0.5 W/(m °C).

2447. (amended) The method of claim 2424, wherein the produced mixture comprises a non-condensable component, wherein the non-condensable component comprises molecular hydrogen, wherein the molecular hydrogen is greater than about 10 % by

volume of the non-condensable component, and wherein the molecular hydrogen is less than about 80 % by volume of the non-condensable component.

2457. (amended) The method of claim 2424, wherein allowing the heat to transfer comprises increasing a permeability of a majority of ~~the selected section~~the part of the formation to greater than about 100 millidarcy.

2458. (amended) The method of claim 2424, wherein allowing the heat to transfer comprises substantially uniformly increasing a permeability of a majority of ~~the selected section~~the part of the formation.

2460. (amended) The method of claim 2424, further comprising providing heat from three or more ~~heat sources~~heaters to at least a portion of the formation, wherein three or more of the ~~heat sources~~heaters are located in the formation in a unit of ~~heat sources~~heaters, and wherein the unit of ~~heat sources~~heaters comprises a triangular pattern.

2461. (amended) The method of claim 2424, further comprising providing heat from three or more ~~heat sources~~heaters to at least a portion of the formation, wherein three or more of the ~~heat sources~~heaters are located in the formation in a unit of ~~heat sources~~heaters, wherein the unit of ~~heat sources~~heaters comprises a triangular pattern, and wherein a plurality of the units are repeated over an area of the formation to form a repetitive pattern of units.